

REMARKS

In view of the foregoing amendments and the following remarks, reconsideration of the present patent application is respectfully requested.

Independent Claims 1 and 12 are amended for further distinguishing the present invention from the cited references, and in particular by reciting *separation of the airflows through the respective first and second channels so that the airflows are not influenced by each other*, as described for example in lines 1 and 2 on page 9 of the original specification and illustrated in original Fig. 6.

Because all of the amendments are supported by the original drawings and specification of the present application, no new matter is added thereby.

Objection to Drawings

The drawings are objected for the reason that the “conducting medium” is not shown in the drawings. For overcoming this objection, Fig. 7 is newly added to show the “conducting medium” with the reference numeral 30.

New Fig. 7 is identical to original Fig. 4, except for the addition of conducting medium 30 described in paragraph 34 of the original specification, and therefore does not represent new matter. Paragraph 34 has been amended to include numeral 30 and to refer to new Fig. 7, but has not otherwise been substantively amended.

Rejection under 35 U.S.C. §112

Claims 4 and 5 are amended into “said heat-dispersing fan is positioned next to said mashed portion”, and Claims 9 and 19 are canceled. Therefore, the rejection under 35 U.S.C. §112 has been overcome.

Rejection under 35 U.S.C. §103(a)

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai (US 6,735,078) in view of Chiou (US 5,502,618).

This rejection is respectfully traversed on the grounds that neither the Tsai patent nor the Chiou patent discloses or suggests, whether considered individually or in any reasonable combination, a heat-dispersing unit having first and second airflow channels, in which:

- The second airflow channel has a first airflow passing through the through the first vent area disposed on the second side surface of the housing;
- The first airflow channel has a second airflow passing through the second vent area disposed on the top surface of the housing; and
- The first and second airflows are separated by the printed circuit board,

as is now recited in claims 1 and 12. Instead, the Tsai patent fails to disclose first and second airflow channels, while the Chiou patent discloses an arrangement in which the two airflows flowing through the two airflow channels above and below the printed circuit board are both via the same air inlets on the upper cover, and are not separated from each other. The provision of separated airflows, *i.e.*, that are not influenced by each other, increases the heat dispersing efficiency of the power supply.

Tsai discloses a high efficiency heat dissipated power supply comprising a base 1, a cover 2 and a fan group. The fan group includes an exhausting fan 13 installed at a rear side of the base 1 for blowing the air out of the housing, at least one cover fan 21 installed in an interior of the cover 2 for blowing the outer air into the housing, and a suction fan 14 installed at a front end of the base 1 for blowing the outer air into the housing (as shown in Figs. 3 and 5). Thereby, the air flows along three paths to increase the heat dissipation efficiency of the power supply. However, Tsai does not disclose a first airflow channel formed between the top surface of the housing and the printed circuit board, and a second airflow channel formed between the bottom surface of the housing and the printed circuit board. Further, Tsai does not disclose that the second airflow channel has a first airflow passing through the first vent area, the first airflow channel has a second airflow passing through the second vent area, and the first airflow and the second airflow are separated by the printed circuit board, as recited in the amended Claims 1 and 12 of the present invention. Therefore, the present invention is distinct from and cannot be taught or suggested by Tsai's patent.

The deficiencies of the Tsai patent are not made up for by the Chiou patent. Chiou discloses a dissipation case for a DC power supplier. As shown in Fig. 2

of the Chiou patent, the dissipation case includes an upper cover 101, a base cover 102, a printed circuit board 2, a plurality of heat sinks 401a, 401b, and a plurality of longitudinal guide walls 301a, 301b, 301c forming a plurality of air passages 302a, 302b, 302c. The upper cover 101 has air inlets 6a, 6b, 6c at the right upper surface and ventilation openings 7a, 7b at the left end wall, and the base cover 102 also has ventilation openings 5a, 5b, 5c at the left end wall, and accordingly, two airflow channels might be respectively formed above and below the printed circuit board 2.

However, as shown in Fig. 3 of the Chiou patent, the fan 3 is mounted in an opening of the printed circuit board and positioned correspondingly to the air inlets 6a, 6b, 6c on the upper cover 101. **Therefore, the two airflows flowing through the two air flow channels above and below the printed circuit board 2 are both via the same air inlets 6a, 6b, 6c on the upper cover 101 and they are not separated from each other.** In contrast, in the present invention, the second airflow channel has a first airflow passing through the first vent area disposed on the second side surface of the housing, the first airflow channel has a second airflow passing through the second vent area disposed on the top surface of the housing, and the first airflow and the second airflow are separated by the printed circuit board, so that the first airflow Q1 is no longer influenced by the second airflow Q2, and more effective airflows can be generated to pass the heat source region for further increasing a whole heat-dispersing efficiency of the power supply (as described in paragraph [0033] and shown in Fig. 6). Therefore, the present invention is distinct from and cannot be taught or suggested by Chiou's patent, or by any reasonable combination of the Tsai and Chiou patents.

In conclusion, none of the above cited references discloses the second airflow channel has a first airflow passing through the first vent area disposed on the second side surface of the housing, the first airflow channel has a second airflow passing through the second vent area disposed on the top surface of the housing, and the first airflow and the second airflow are separated by the printed circuit board, as recited in the amended Claims 1 and 12 of the present invention. Therefore, the Applicant respectfully submits that none of the references cited by the Examiner, or any combination thereof, render the amended Claims 1 and 12 obvious. Withdrawal of the rejection of claims 1-20 under 35 USC 103(a) is accordingly respectfully requested.

Having thus overcome each of the objections and rejections made in the Official Action, expedited passage of the application to issue is requested.

Respectfully submitted,

BACON & THOMAS, PLLC

A handwritten signature in black ink, appearing to be 'B. Urcia', with a long horizontal flourish extending to the right.

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AMENDMENTS TO THE DRAWINGS:

Please add new Fig. 7 to show the “conducting medium” with the reference numeral 30.